
Operating a network; enhancing incident response

We help New Zealand grow by keeping Auckland moving.



Seven organisations form the Auckland Motorway Alliance



Auckland Motorways



Network extent

From Puhoi to Pokeno





NZTA Akid & Nthind @NZTAAKI · I
SH1 SOUTHERN MWY, NORTHBOUN

There is HEAVY congestion northbo
earlier road closure due to a serious
the area. ^MF



2 1



for

NEW ZEALAND

10km queue: Paint spill on Southern Motorway traffic reduces traffic to a crawl

15 Jan, 2018 9:57am

2 minutes to read



A large amount of white paint is covering a section of Auckland's Southern Motorway. Photo / Twitter

NZ Herald





Typical minor

Vehicle failure



Minor crash



Medical event



Minor asset damage



Unsecured load



Unsecured load





Typical Serious Incidents

Asset damage



Truck Rollovers



Truck Rollovers



Spills



Spills



Spills



Spills



Serious crash



Multi Car Pile-up



Vehicle fire



Tidal inundation



Bridge Strikes



Penrose Bridge Strike



Congestion Effects

Bridge Strike



Congestion Effects

Conditions at time of incident; time = 0 seconds



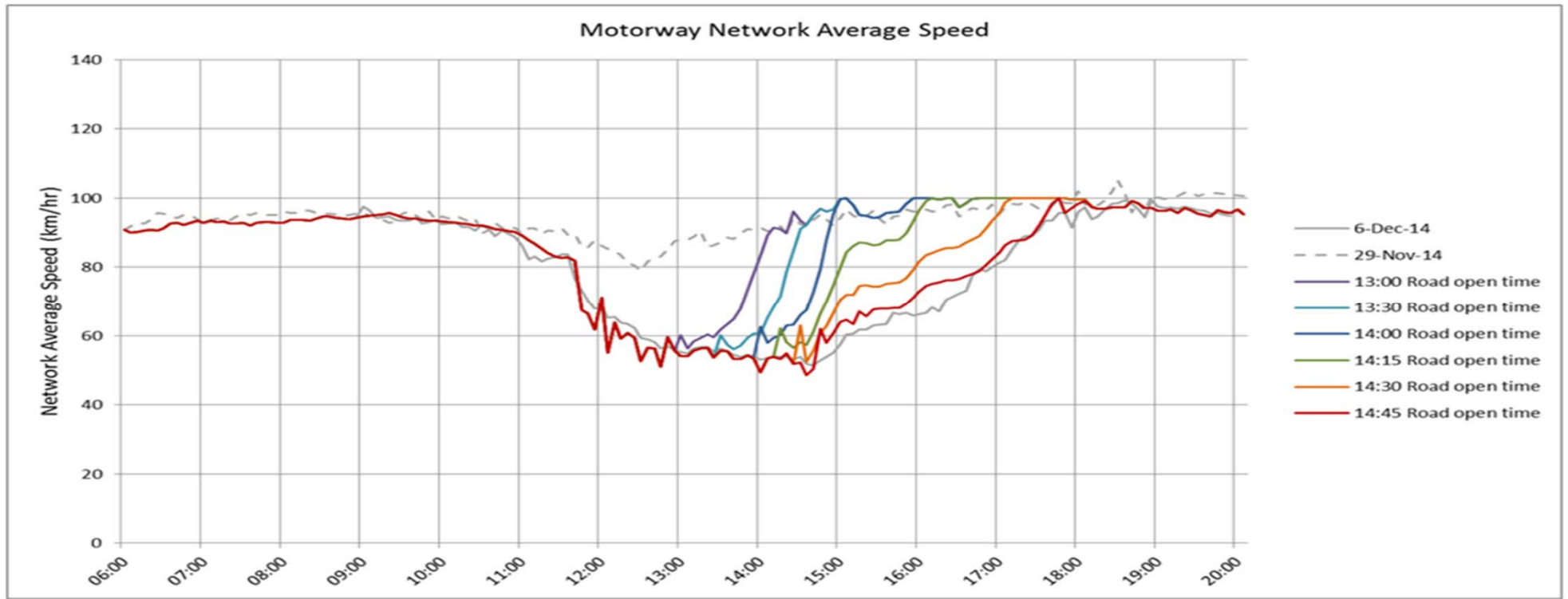
Congestion Effects

Post incident; time = +120 seconds



“Every minute counts”

For unplanned events, congestion recovery is not linear.



Case Study – Vehicle resting in berm (Trees) SH1 NB between Papakura to Takanini

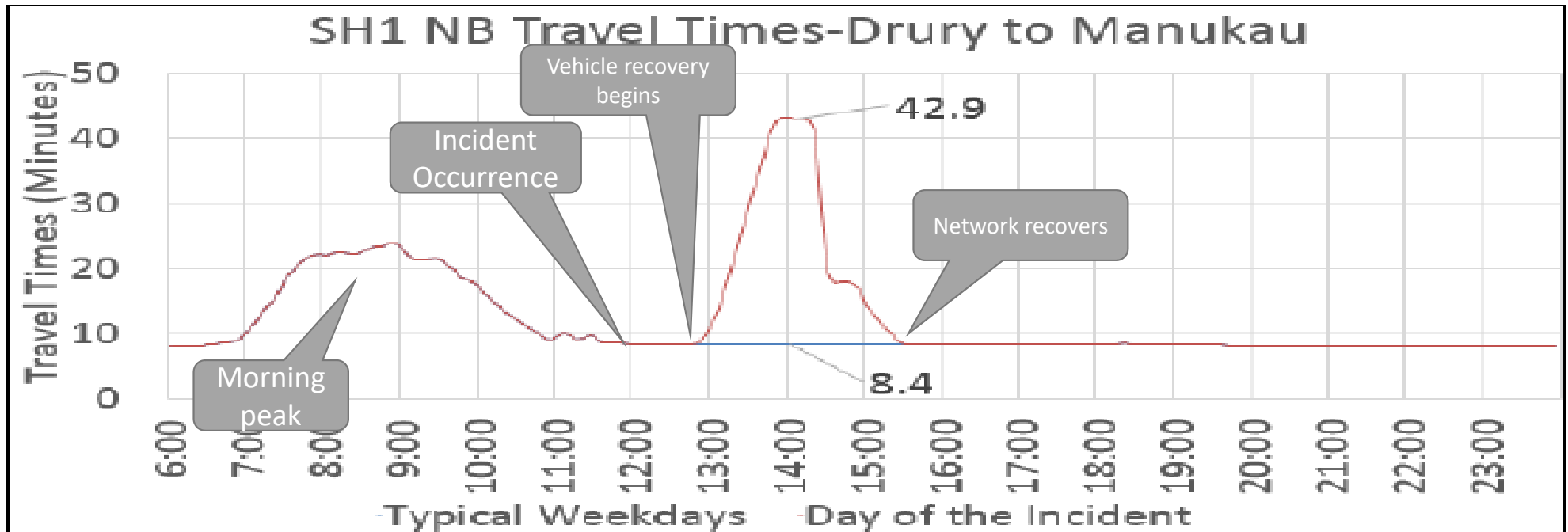
- Decision was made to haul the truck onto the shoulder
- Lane 1 became closed
- Traffic congested for 5km



Case study; errant truck 04 July 2016

Vehicle resting in berm (Trees) SH1 NB between Papakura - Takanini

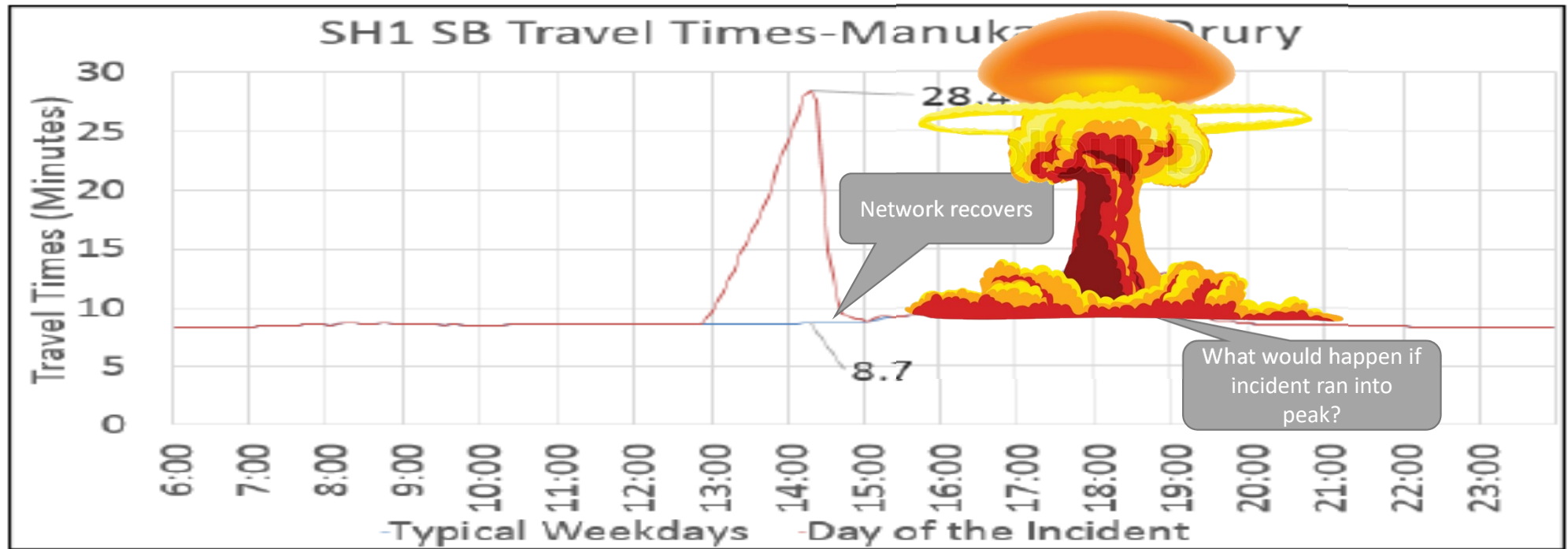
Northbound Travel Times



Case study; errant truck 04 July 2016

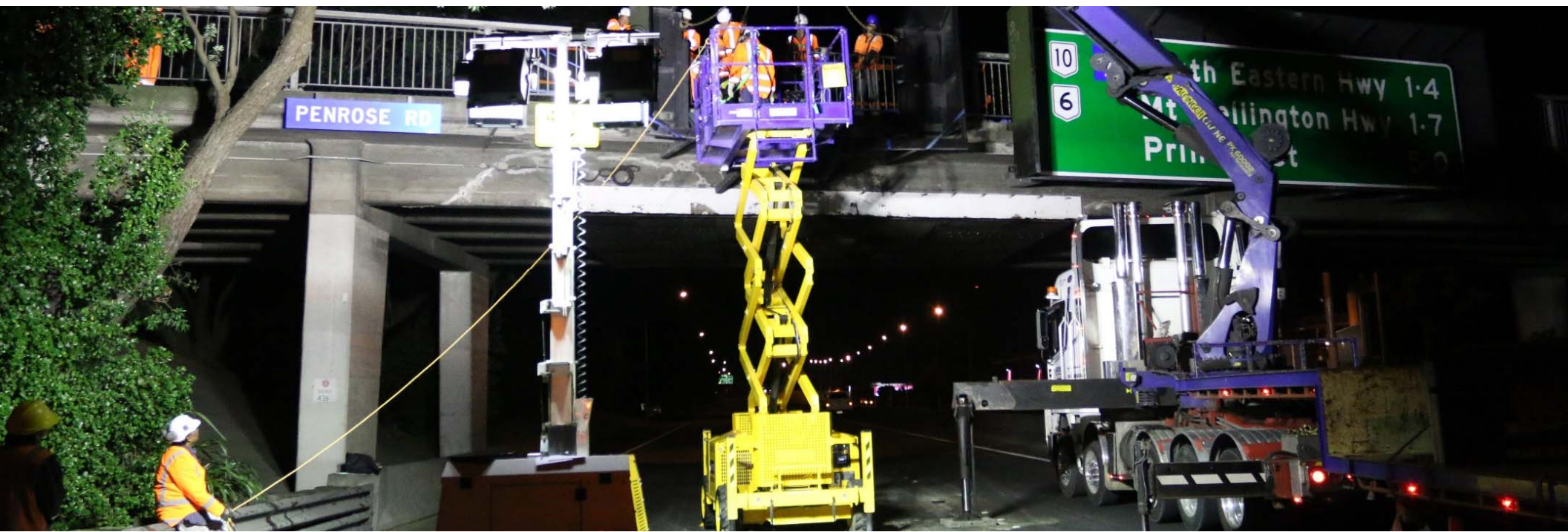
Vehicle resting in berm (Trees) SH1 NB between Papakura - Takanini

Southbound Travel Times



Current Level of Service

Responding resource to be on the AMA network within 30 minutes 24/7:





“Every minute counts”

>1,000,000 vehicle trips. Every day.

- 200,000 vehicles going past Greenlane each day.
- 10,000 vehicles per hour in peak, per direction.



How did we see improvement?

Key areas:

#1

Relationships

Key stakeholders

Unified command

Assisting our
neighbouring network

#2

Preparedness

Training

Overlapping areas of
response

Agreement in service
delivery

#3

*'Getting
there
quicker';*

#4

*'Do
more'*

Nimble response

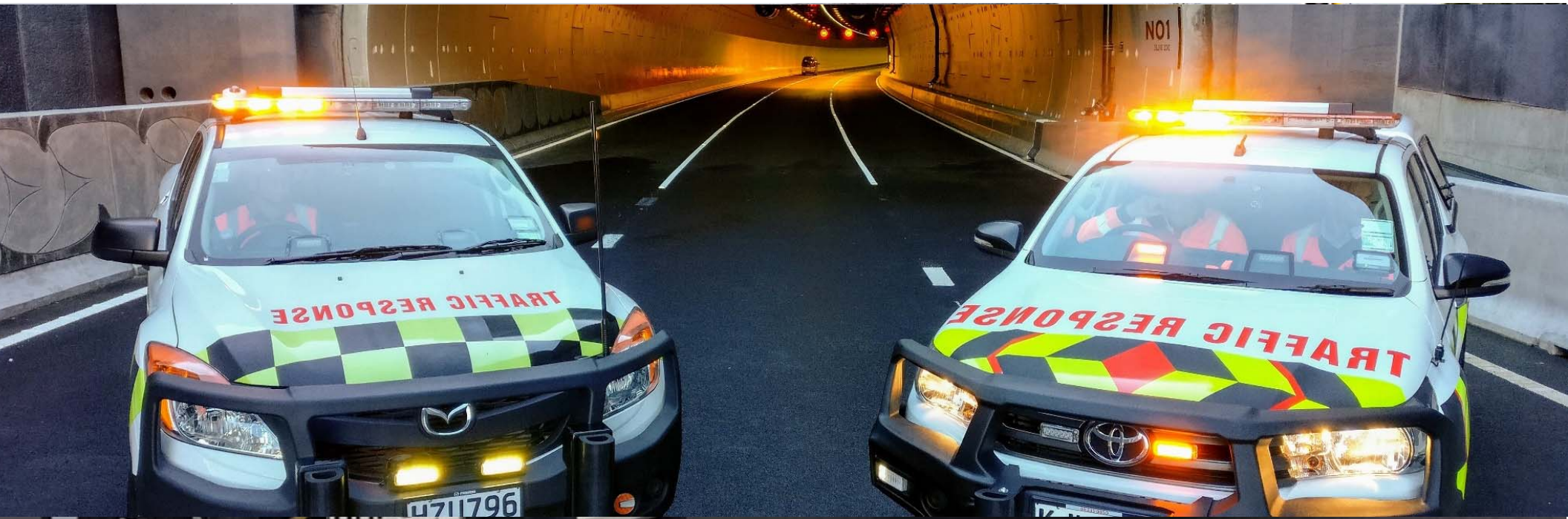
Strategic
deployment

Working towards
road restoration

Relationships:

Where can we make real change onsite?

- PEOPLE: Familiar faces, share understanding.
- SAFETY: Working together amongst traffic



Relationships: Integration at ATOC-Smales



Preparedness: Training

Drive the correct decisions and appropriate treatments;

- Identify the opportunities for improvement;
- In-house training developed and delivered;
- Involve key stakeholders.



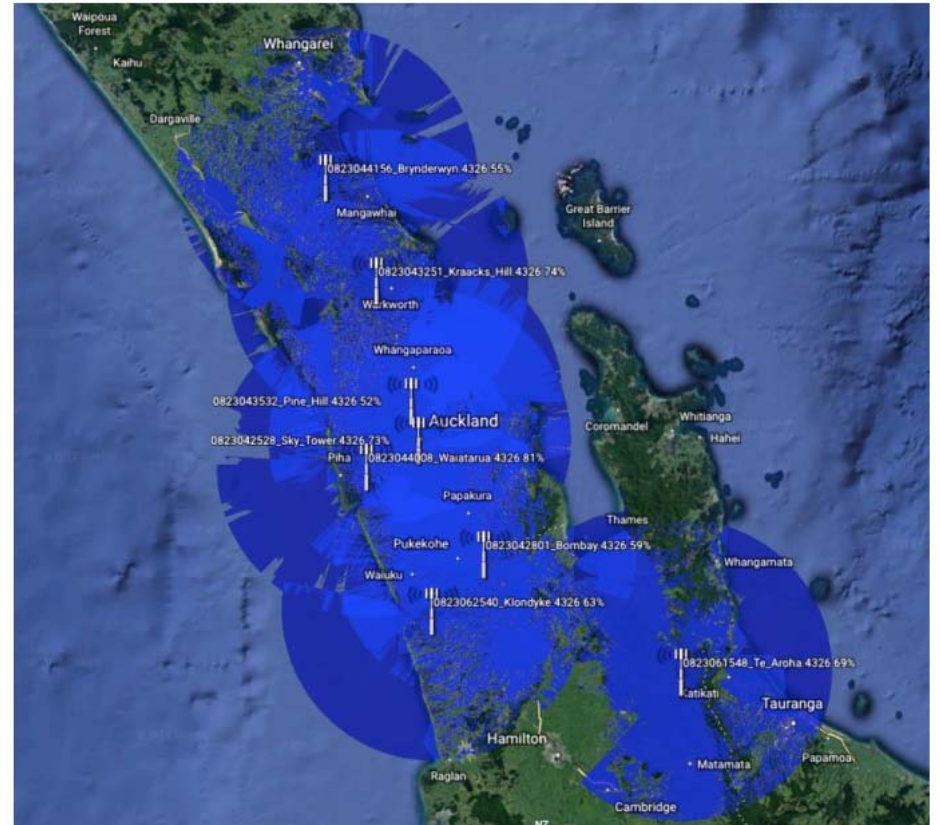
Preparedness: EOC Facilities



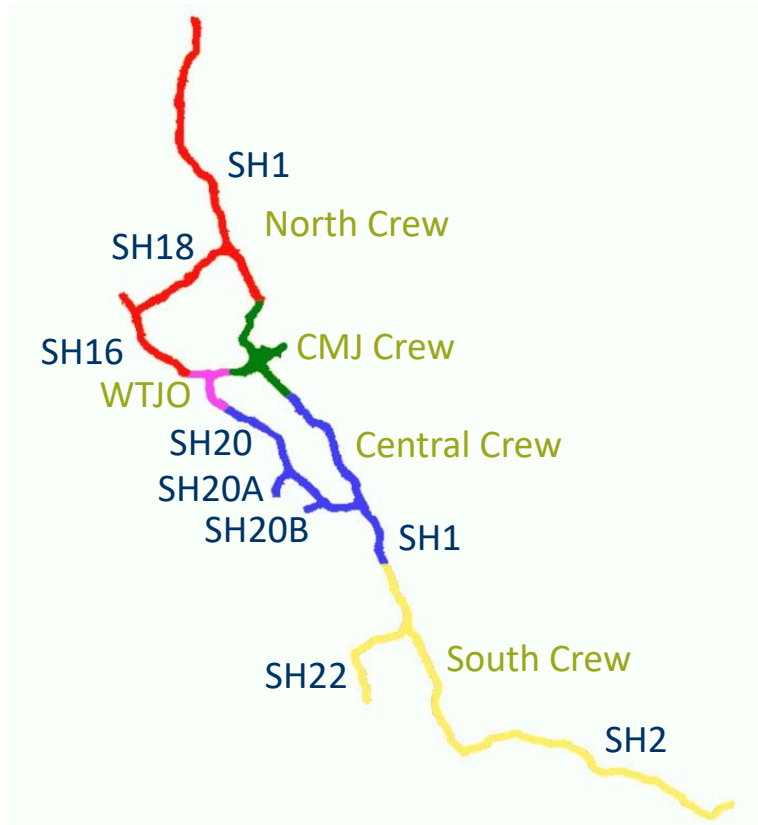
Preparedness: AMA Emergency Operations Centre (EOC)



Preparedness: Communication



Preparedness: Incident Response Crews - Day



- North Crew
- Central Crew
- South Crew
- CMJ Crew
- Waterview Tunnel (WTJO)
- Traffic Response Unit

Preparedness: Incident Response Crews - Night



- CMJ Crew
- Waterview Tunnel (WTJO)
- AMA Night Maint. Crew (weekends on-call)
- TRU On Call
- Duty Engineer On Call

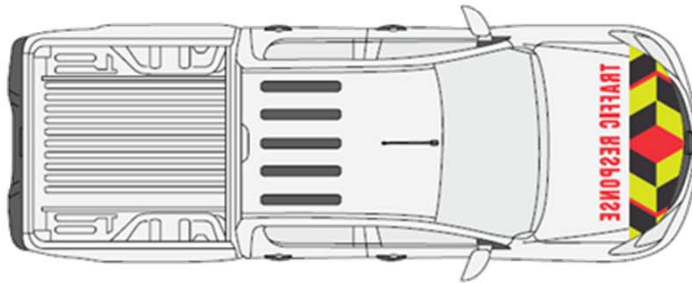
Incident Response Crews



'Getting there quicker'

Enhancing our ability to attend as soon as possible

- Development of a traffic response TMP
- Registration of vehicle livery to the Agency
- Vehicle lighting fit out



Do more: Traffic Incident Manager (TIM)

Performs the role of NZTA recovery Manager:

- Liaison with responders
- Command and control
- Intelligence (SitReps)
- Traffic management
- Identify and mobilise specialist plant ASAP
- Asset restoration



Do more: Traffic Response Unit



Do more: Traffic Response Unit



Do more: clearing Blocked Lanes

Push Bars – Nudge Bars



Do more: Provide site intel

Push Bars – Nudge Bars



Do more: Tow Truck



Do more: Traffic Response



Do more: TRU Equipment

Spare PPE & Investigation Equipment

Fire Extinguishers

Charging station

Welfare Amenities

First Aid Kit

Vehicle Recovery

- Water
- Petrol
- Diesel
- Jack
- Broom
- Impact wrench
- Tow Rope
- Small Tools
- Jump starter



Blower

Delineation Devices

Spill Kit

Do more: Clearing Blocked Lanes

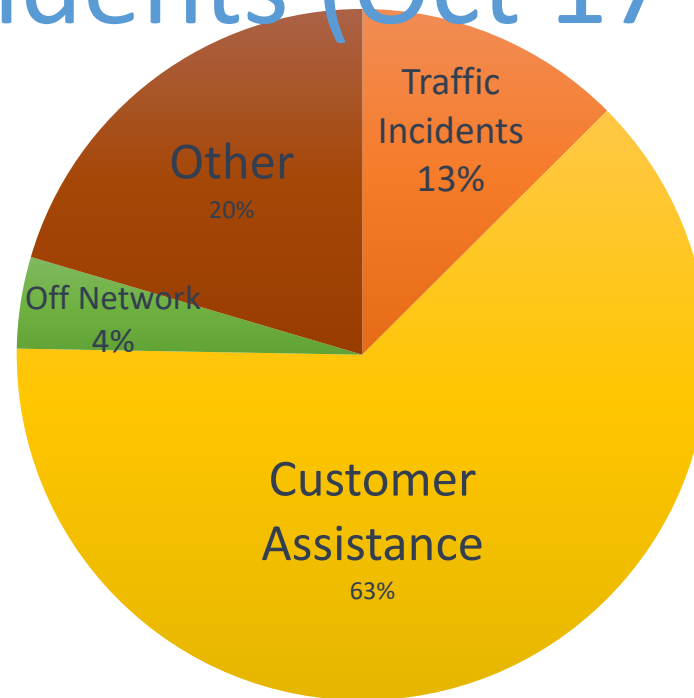


Do more: TRU Functions



Do more: TRU operation

1217 incidents (Oct 17 – Feb 18)



248 individual customers assisted in Feb 2018!

■ Traffic Incidents ■ Customer Assistance ■ Off Network ■ Other

Knowledge Transfer

Road Incident Management Guide (Draft 2017)

Comprehensive Edition



NZ TRANSPORT AGENCY
www.nzta.govt.nz

Auckland Motorways

RIMG-TM1 Closure of Interior Lane(s)

Although the closure of interior lane(s) without the left or right lane being closed is not described in COPTTM, there were overseas studies and guides that support the use of this method to increase capacity and reduce queuing on the motorway.

The STMS can choose to deploy COPTTM style multi-lane closures covering the interior lane(s) if operating speed is a concern.

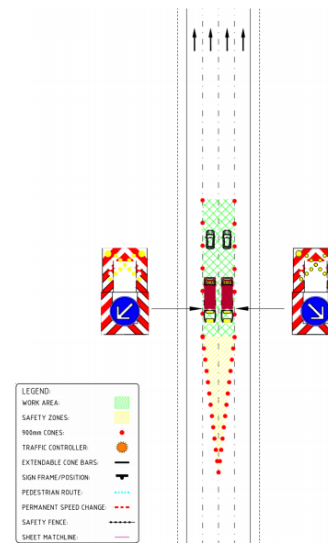


Figure 3. Splitting Traffic, Just Closing Middle Lanes

For more information
Phone: 09 52 00 200
Email: help@nzta.govt.nz

NZ TRANSPORT AGENCY
www.nzta.govt.nz

Fulton Hogan OPUS BECA Resolve ARMITAGE

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End

Many thanks.